## ::: TECHNICAL DOCUMENT



SouthWest Metro Transit - night shot of halo lit reverse channel letters



Day shot of SWMT letters



Snap Fitness channel letters



City Tavern



Fit After 50 channel letters

# GUIDE TO CHANNEL LETTERS



LifeTime Fitness - reverse channel letters on a pylon monument



Snap-on Tools - channel letters on a aluminum monument sign



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# SIGN SOURCE GUIDE TO CHANNEL LETTERS

Illuminated channel letters are one of the most cost effective ways to advertise your business and capture customer attention twenty-four hours a day. Whether you choose front or halo lit, neon or LED illumination, direct or raceway mounting, we can design, build and install letters ideally suited for your location. In addition, as a UL Listed sign company, we meet rigorous quality standards and can assist in obtaining the necessary permits in any city or retail development.

This guide was created to give you an understanding of the options available when buying channel letters. We hope by educating you on the pros and cons of the various types of fabrication, lighting and mounting methods we can assist you in making the best decision possible.

Contact one of the knowledgeable sales people at Sign Source today for more information or visit us on the web at:

www.sign-source.com



### **CHANNEL LETTERS 101**

Although there are only two basic types of channel letters (standard and reverse) there are several variations of each including type of illumination (neon or LED) and mounting method (direct or raceway).

Although you may desire a certain combination of these options, please keep in mind they may be dictated by local ordinance or the sign criteria for your particular commercial development. In addition, these options can affect fabrication and installation costs as well as energy and ongoing maintenance expenses.

### **FABRICATION METHOD**

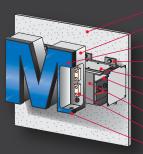
#### STANDARD CHANNEL LETTERS - FACE LIT

Standard channel letters have aluminum sides (returns) and backs with colored acrylic faces and are illuminated from the inside with either neon or LEDs (light emitting diodes). Since all of our channel letters are fabricated with aluminum they will never rust.





Night and day shots of standard channel letters.



- Building Facia – Aluminum Return & Back
- Translucent Acrylic Face
- Raceway Mounting Clip
- Raceway Servicing Lid — Transformer
- Aluminum Raceway (Optional)
- −L.E.D. Lighting −Trim Cap

#### **REVERSE CHANNEL LETTERS - HALO LIT**

Reverse channel letters are often referred to as "halo lit" and are built somewhat opposite of standard channel letters since they typically have aluminum faces and clear polycarbonate backs. The result is a halo of light around the letters at night which gives a warmer feel but may be slightly less readable.





Night and day shots of reverse channel letters.



Building Facia (Lighter Color w/ Rough Surface Recommended for Best Results)

Welded Aluminum Face & 2" Deep Returns (Can be Painted any Color)

Clear Polycarb Letter Back

L.E.D. Lighting - Attached to Letter Back and Pointed Towards Face

Transformer (Mounted Behind Wall)

Halo Effect Lighting is Created by Reflecting Light Off of Inside of Letter and then Building Facia.

# RACEWAY OR DIRECT MOUNTING?



#### **RACEWAY MOUNTED CHANNEL LETTERS**

Raceway mounted channel letters are attached to a long, narrow rectangular aluminum box called a raceway. The raceway contains all the electrical components such as wiring and power supplies. Instead of each individual letter being mounted to the wall, the letters are mounted to the raceway which is then mounted to the building. Raceway mounting is ideal for applications where local codes, building owners, or the facade of the building prohibit direct mounting. Raceways allow for easier installation and service and can be painted to match the wall.



#### **DIRECT MOUNTED CHANNEL LETTERS**

Unlike raceway mounted channel letters, direct mounted channel letters are attached directly to the surface of the building. The wiring is then fed through the wall to an interior cavity where the power supplies are located. Direct mounted channel letters are cleaner looking but also require more installation time and drilling of holes into the building.

### LETTER VISIBILITY CHART

The following distances will vary approximately 10% with various color combinations. Maximum distance in color would be red or black on a white background.

Letter Height	Maximum Impact	Max. Readable Distance
10"	100'	450'
12"	120'	525'
15"	150'	630'
18"	180'	750'
24"	240'	1000'
30"	300'	1250'
36"	360'	1500'
42"	420'	1750'
48"	480'	2000'
54"	540'	2250'
60"	600'	2500'

Prepared By The California Institute Of Technology.

# ILLUMINATION METHOD - L.E.D. OR NEON?

#### **NEON LIGHTING**

Not long ago neon was the only option for illuminating channel letters. Neon lighting consists of a glass tube which is bent to the shape of each letter and filled with a variety of gasses depending on the desired color. While neon still provides slightly greater brilliance in some colors, it is subject to dimming under cold conditions, typically requires more frequent maintenance, and requires greater amounts of energy consumption for illumination.

#### L.E.D. LIGHTING

Light Emitting Diodes (LEDs) are small, low voltage lights that when connected in a series provide excellent illumination under all temperature ranges. LEDs are rapidly becoming the most popular form of channel letter lighting and are now specified by most national retailers. Not only are LEDs competitive in price to neon but they also require far less maintenance and energy usage.





Neon Tubes

L.E.D. Light Strands

## THE RELATIVE VALUE OF SIGNS

Advertising Media	Duration	Cost range per unit	Cost range per month	Cost range per year
Telephone Directory Local Papers Weeklies Local Papers Dailies National Publications Radio & TV Direct Mail Signs and On-site Ads	1 year	\$84 - \$7,440	\$7 - \$620	\$84 - \$7,440
	1 week	\$66 - \$1,268	\$264 - \$4,564	\$2,808 - \$48,100
	1 day	\$96 - \$7,952	\$317 - \$31,806	\$3,372 - \$413,481
	1 month	\$430 - \$64,500	\$430 - \$64,500	\$4,128 - \$681,120
	30-60 seconds	\$30 - \$50	\$300 - \$1,600	\$3,600 - \$19,200
	2-3 days	Variable	Variable	Variable
	<b>5-20 years</b>	<b>\$75 - \$10,000</b>	<b>\$1.25 - \$41.66</b>	\$15 - \$500

Note: Of all the media represented here, only signs actually decrease in cost over time.\* As taken from Sign Business Magazine 2002

# WHAT YOU GET IN YOUR PRICE QUOTE

- Sign Design and Drawings
- Digitization of Artwork/Logos
- Sign Placement/Sizing Drawing
- Permit Survey
- Permit Drawings
- Landlord Drawings
- Permit Filing

## SIGN SOURCE CHANNEL LETTER FEATURES

- Aluminum Construction
- CNC Precision Manufacture
- 3M Translucent Vinyl Overlays/Graphics
- U.L. Approved Design & Fabrication
- Heavy duty extruded aluminum raceway



## **U.L. COMPLIANCE**



Underwriters Laboratories is the trusted source across the globe for product compliance. Benefiting a range of customers - from manufacturers and retailers to consumers and regulating bodies.

All our lighted wall signs are built to U.L. requirements and come labeled to meet the necessary electrical codes found throughout the nation.

#### WARRANTY INFORMATION

Sign Source will provide both parts and labor if any part of the sign fails during the first ninety days following date of installation. After ninety days all components will be covered up to a total of two years but not the labor necessary to repair or replace those components.





## CHANNEL LETTER CRITERIA

IF YOU ARE GETTING A LOWER QUOTE SOMEWHERE ELSE, MAKE SURE YOU ARE GETTING THE SAME THING...

- \$2,000,000 General Liability Product Insurance
- Licensed to install within the applicable city
- In-house fabrication (not subcontracted)
- Computer generated letters, not handmade
- .063 or heavier aluminum channel letter backs
- All seams caulked
- Drain holes in every channel letter
- Heavy duty extruded aluminum raceway
- Neon transformers enclosed in vented metal cabinets
- Only ground fault indicating transformers used
- Energy-saving electrical components
- High-voltage silicone-insulated wire used for neon installation
- Neon electrode boots as required by Underwriters Laboratory
- Sign meets Underwriters Laboratory, National Electrical Code, and City Code standards using UL criteria
- All new components

- All fasteners will be galvanized or non-corrosive
- Work area will be left in a broom-clean condition

